Legends:

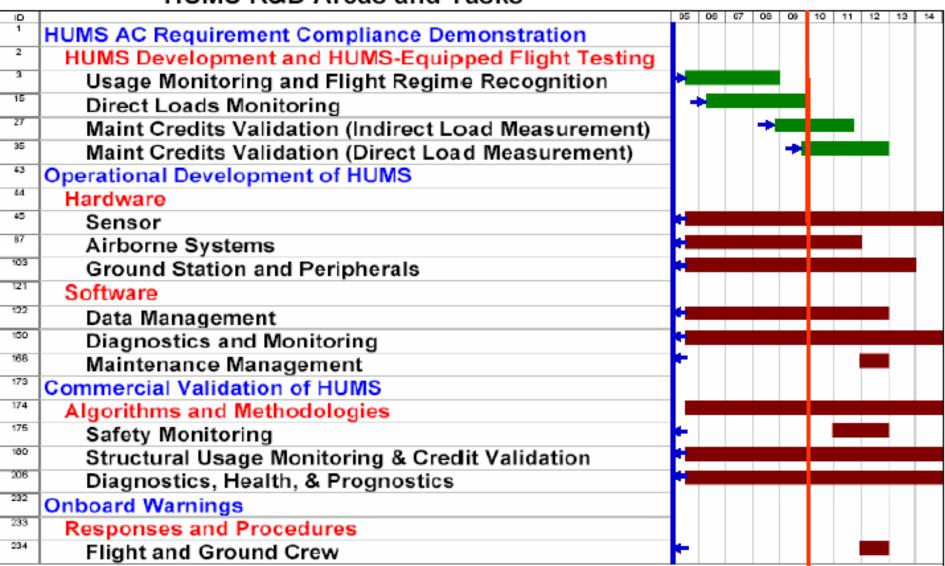
Technology Demonstration

HUMS R&D Roadmap

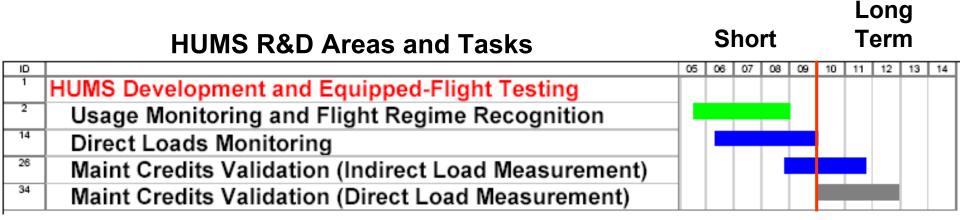
Technology Development And/or Validation Long Term

Short

HUMS R&D Areas and Tasks



HUMS AC Requirement Compliance Demonstration



Priority:





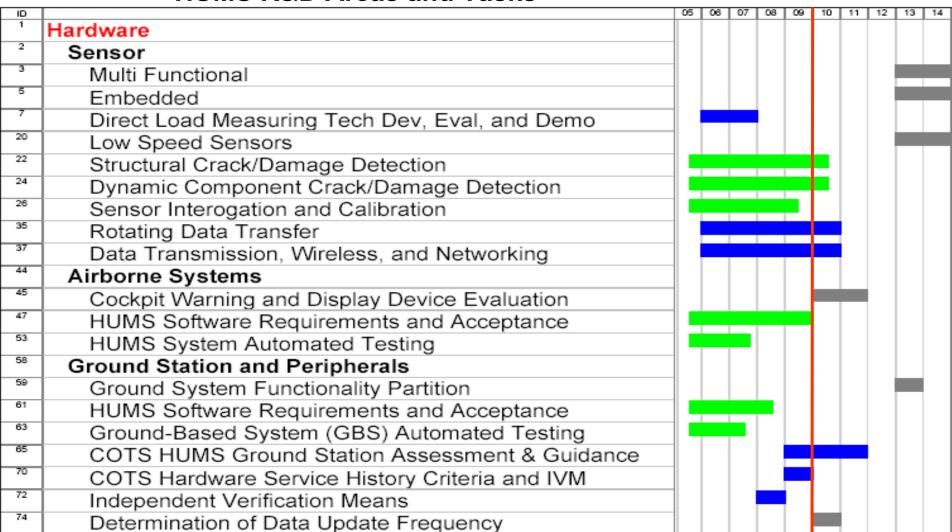


Development of HUMS Operational Requirements - Hardware -

HUMS R&D Areas and Tasks

Short

Long Term

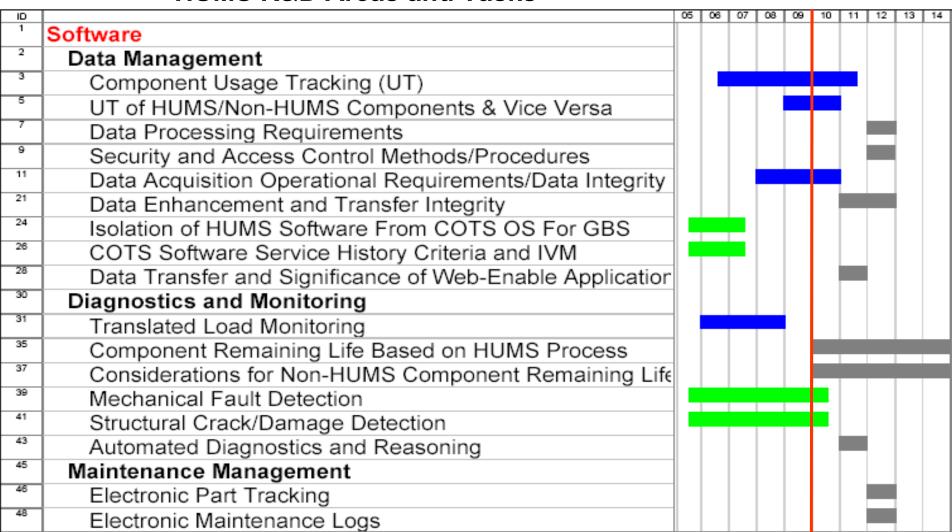


Development of HUMS Operational Requirements - Software -

HUMS R&D Areas and Tasks

Short

Long Term



Commercial HUMS Validation Algorithm and Methodologies -

HUMS R&D Areas and Tasks

Short

Long **Term**

	rionio riad / libao ana rabito										
ID		05	06	07	08	09	10	11	12	13	14
1	Algorithms and Methodologies										
2	Safety Monitoring										
3	HUMS Minimum End-to-End Performance Criteria										
5	End-to-End Systems and Accessory Requirements										
7	Structural Usage Monitoring & Credit Validation										
8	Advanced Rotor Tuning										
13	Advanced Sensor Validation Criteria										
17	Regime Recognition and Monitoring										
27	Physics of Proposed Credits (e.g., Collection of Data)										
29	Credit Validation Methodology										
31	Requirements for Type of Direct/Indirect Evidence										
33	Diagnostics, Health, & Prognostics										
34	Trend Analysis										
36	Mechanical Fault Detection										
44	Structural Crack Detection										
49	Component Remaining Life Based on HUMS Process										
57	Automated Diagnostics and Rationale										

8/14/2006

Onboard Warnings - Responses and Procedures -

	HUMS R&D Areas and Tasks	Short			Term						
	TIOMS NOD Aleas allu Tasks	l oe		0.7	0.0	00	40	-	40	12	14
1	Responses and Procedures	05	06	0/	00	09	10	11	12	13	14
2	Flight and Ground Crew										
3	Impact of Displayed HUMS Information on Pilot Workload										
5	Pilot Reaction on Warnings										
7	Procedures for Responding to Warnings										

Long